

The Polish Labor Market on the Road to the EU

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Abstract

Poland's current challenge is to complete its transition to a fully developed market economy, while advancing towards integration into the European Union. This paper is devoted to analyzing the Polish labor market's main institutions, circa 1995, in the areas of labor reallocation, wage setting, labor supply, and labor market regulations. In each of these areas, policy recommendations are proposed in order to reform them, so as to reduce unemployment and enhance Poland's chances of a successful accession to the EU.

1 Introduction

Poland's current challenge is to complete its transition to a fully developed market economy, while advancing towards integration into the European Union (EU). Successful accession to the EU will require Poland to raise the efficiency of its human resources. Since the current employment structure is clearly inadequate, the process of raising efficiency is likely to cause a sizable amount of labor reallocation. This process entails both rewards and risks. The rewards come in the form of convergence to the significantly higher income and welfare levels enjoyed by EU countries. The risks are mainly related to unemployment which, at 13 percent of the labor force, is already high. A labor market which does not work well could hamper the process of labor reallocation and, to the extent that reallocation happens, could lead to a stagnant or even increasing unemployment rate. In this case the strategy of convergence to the EU would be jeopardized.

In market economies large numbers of workers enter and leave unemployment at all times. Over the last 20 years, unemployment in EU countries has risen and remained high, not as a result of high entry but of low exit rates from unemployment. In these countries labor market institutions generate persistence mechanisms whereby the unemployment rate goes up in recessions but does not tend to return to its pre-recession levels afterwards. Wage bargaining systems, unemployment benefits, and labor market regulations are all sources of this persistence. In Poland, strong growth resumed in 1992 after a deep recession but the unemployment rate remains roughly at its 1992 level (Labor Force Survey definition). This suggests that persistence mechanisms are also at work in Poland's labor market. This paper is devoted to

analyzing this market's main institutions and proposing policy measures to reform them so as to reduce unemployment persistence and enhance Poland's chances of a successful accession to the EU.

Since the focus is on EU accession, I have chosen Spain as the reference economy throughout the paper. Spain joined the EU with an income level significantly below the EU average, which makes it a more relevant benchmark than the last three, higher-income, incoming members (Austria, Finland, and Sweden). Spain is also a more useful benchmark than other recent members, like Portugal or Greece, due to its more similar geographical and population size. Lastly, the Spanish experience of an unemployment rate which doubles the EU average provides relevant evidence on some institutional features that Poland should avoid. I also provide various quantitative comparisons of Poland vis-a-vis other EU countries in the paper. These are not meant to suggest that Poland should quickly attain EU levels, since in most instances the existing income gap would make such goal unwise or unfeasible, but are used as benchmarks for Poland's likely direction in the near future.

The paper is organized as follows. I first discuss the expected direction and potential size of labor reallocation flows in Poland. The rest of the paper is devoted to analyzing key Polish labor market institutions that will determine the pace and effects of reallocation. I start describing the wage setting structure in both private and State owned firms. I then examine three aspects of labor supply: unemployment benefits, education and labor market policies, and geographical labor mobility. The paper ends with an analysis of labor demand in connection with labor market regulations in Poland and in the EU.

2 Labor reallocation: direction, size, and effects

In the transition to a market economy system in ex-communist countries, prices have started revealing consumer preferences and producer costs. Inefficient firms are either being driven out of the market or they are having to lower their unit costs and to improve their products. The latter requires them to invest in physical capital and to improve the quality of their workforce, by hiring, training, and firing workers. Such activities cause continuous labor reallocation in all market economies, but are especially needed in economies in transition, which start from highly inefficient employment structures.

Indeed, there has been labor reallocation in Poland since 1989, whereby the share of services has increased, mostly at the expense of industry. This pattern is explained by large job destruction in State-owned enterprises (Coricelli et al., 1995; Commander and Dhar, 1996). To get a grasp on the likely direction and potential amount of future labor reallocation, I compare the employment structure in Poland in 1995 with that in Spain on the eve of its EU accession (1985) and 7 years into it (1992) (Table 1). Focusing on the first date, the main difference is that in Poland the share of agriculture is 10.5 points larger than in Spain in 1985, a difference mirrored by the lower share of services. Although the share of industry is the same in both countries, mining has a higher weight and construction a lower one in Poland. As to the remaining industrial sectors, the relevant feature is the lower share of most light industries (Figure 1). In the communist period, agriculture was not subject to international competition, and heavy industry and mining

were artificially boosted, while light industry and services were artificially limited. Future labor reallocation will therefore entail movements of workers away from the former sectors into the latter ones.¹ The Spanish figures also reveal an accelerated shrinkage of agriculture after EU accession and a further slight deepening of the pattern of industrial specialization described above.

Regarding employment levels, suppose Poland was to achieve by the year 2005 the employment structure Spain had in 1985, and that employment were to grow at 1 percent per year from 1995 to 2005 (about the same rate Spain had in the first 10 years of EU membership). This rate is clearly above the one achieved in 1990-95, -2.3 percent, but below the rate attained by the private sector (see the labor demand section at the end of the paper). Then, over the period 1996-2000, there would be a net reduction of 621,000 jobs in agriculture and net increases of 230,000 and 1,144,000 jobs, respectively, in industry and services, i.e. around 750,000 new net jobs (Table 2). In some instances, regarding reallocation, these figures are more ambitious than available official scenarios. For example, the Government of Poland forecasts some 80,000 job losses in coal mining from 1995 to 2000 and 21,000 job losses in the steel industry (Republic of Poland, 1996, chapter 4).

Gross labor flows are usually several times larger than net ones. Extrapolating the relationships between them in Poland over the recent expansion of 1994-95, there would be annual gross unemployment inflows of 1,723,000 workers in 1996-2000 (75 percent from employment) and gross unemploy-

¹The scenario is only indicative. For example, the labor cost per equivalent ton of coal is 5 times higher in Spain than in Poland. This lower cost implies that mining employment in Poland need not shrink all the way to Spanish levels.

ment outflows of 1,814,000 workers (50 percent to employment) (Appendix 1). With a labor force growth rate of 0.7 percent per year, the unemployment rate would come down to 10 percent in the year 2000 (though it could fall further if employment grew more or the labor force less than assumed).

This scenario highlights the sizable amount of labor reallocation that would result from Poland converging at a relatively fast pace. The underlying cause as well as the payoff would be a large productivity gain. In 1992 Poland's labor productivity was one-third of Spain's (at real PPP exchange rates). Achieving the productivity level Spain had in 1985 would raise Poland's relative level to two-thirds (one-half in the year 2000 in the scenario above).

Apart from the role of labor market institutions, discussed below, the feasibility of this process depends on two other conditions. One is the capability of the private sector to generate the new jobs needed, addressed at the end of the paper. The second requirement is faster privatization of State-owned enterprises (SOEs). The public sector still accounts for 40 percent of total employment in Poland, much above what is observed in the EU (e.g. 18 percent in Spain). The privatization process has been slow and the fact that, although the State is the formal owner, workers are *de facto* in control of many SOEs (Coricelli et al., 1995; Blanchard, 1997) has resulted in insufficient restructuring. This may change, since the Government of Poland plans to transfer 237 firms, employing 177,450 workers (12 percent of total employment), to the private sector over 1997-2000 (Economic Review, 1996). Faster privatization would raise labor reallocation because many SOEs suffer from excess employment (see below). Except for their wage-setting practices, dis-

cussed in the next section, I will not deal with SOEs further. The remainder of the paper is then devoted to analyzing the institutions which are crucial for a smooth labor reallocation process in Poland.

3 Wage setting

In the communist period wages were determined by central planners. In market economies wages result from the interplay of supply and demand for each type of labor, the latter forces being affected by numerous institutions. By establishing their wage setting practices, the Polish people are in fact deciding what sort of wage and employment outcomes they will get.

Recent wage behavior. In the initial transition period large wage increases in SOEs were discouraged through an excessive wage growth tax (PPWW or *popiwek*). The tax was later phased out and since 1995 the only binding rate is determined at a centralized bargain at the Tripartite Commission (TC). The TC is formed by the Government, employers' associations, and trade union federations. The TC determines the wage growth rate for public employees. The same rate applies, as a ceiling, to SOEs in a difficult financial situation. Neither SOEs in good conditions nor private firms are bound by TC guidelines. The experience indicates that these guidelines are revised when the imbedded inflation forecast is surpassed by actual inflation, so that wages may increase in real terms.

In the private sector, composed mostly of small firms, wage setting is very decentralized. Collective agreements are legally binding only for firms signing them (directly or through an association). Neither employers' asso-

ciations nor unions are well represented in the private sector, and so far only 8 sectoral agreements have been signed. The Ministry of Labor and Social Policy (MoLSP) may, upon request of employers' or workers' representatives, extend the scope of collective agreements to hitherto uncovered workers, if it is deemed of important social interest, but this has seldom happened so far.

To judge the adequacy of the evolving Polish wage setting institutions with a view to EU accession, I now discuss recent wage outcomes. Aggregate, real unit labor costs were stable in 1995. Available sectoral labor cost data are quite limited and so, for a disaggregated analysis, I resort to both firm-level labor cost data and sectoral wage data. Real gross wages (in terms of the GDP deflator) fell by 0.6 percent in 1994 but increased by 5.3 percent in 1995. The differences between the rates of growth of productivity and gross wages in those two years were 4.8 percent and -0.3 percent, respectively.² In 1994 only 3 sectors had wage growth above the economy-wide productivity increase: Manufacturing; Electricity, Gas, and Water; and Public Administration and Defense (8 percent, 28 percent, and 15 percent more, respectively). Note that the latter sector is fully public and the second one 97 percent public in employment terms.

The recent sectoral wage growth pattern has tightened the relationship between wages and productivity. Ordering sectors according to their real productivity levels and then by their real wage levels, the rank correlation coefficient was 0.15 in 1993 and 0.44 in 1994. This finding has two alternative readings. Individual wages may have become more closely linked to individ-

²The underlying employment data result from adding up sectoral employment official data. Using Labor Force Survey (LFS) data, which show lower employment growth, the figures are larger: 7.2 and 0.7 percent.

ual productivity. In such case, the sectoral aggregate would be capturing an increase in the returns to skill. But it may be that higher average firm or sectoral productivity is being captured by all employees in a given firm or sector, with little relation to individual skill. The evidence suggests that both elements are present, although the second explanation appears to be more important in the public sector, whereas the opposite appears to be true in the private sector.

Wage behavior at SOEs can be analyzed with a World Bank dataset on a panel of all Polish large firms and an additional 10 percent sampling of medium-sized firms. It is highly representative of SOEs and moderately representative of private firms existing in 1989, but it misses any private firm created since then. In these firms real (product) wages doubled between 1990 and 1994, with little difference by firm ownership type. Moreover, once other factors are controlled for, about one half of productivity increases are appropriated by wages (Commander and Dhar, 1996). This wage-to-productivity coefficient has decreased over time (from 80 percent up to 1992, to 50 percent thereafter). As a comparison, wage-to-productivity coefficients, or "insider weights", for EU firms range from 3 percent in Nordic countries to 15 percent in the UK (Layard et al., 1991). In Spanish manufacturing firms it stands around 10 percent (Bentolila and Dolado, 1994).

High insider weights are typical of firms in which wage setters attempt to raise the income of presently employed "insiders" while preserving their chances of keeping their jobs, but paying little attention to the interests of unemployed "outsiders" (Blanchard and Summers, 1986). This leads to an asymmetric employment response to the business cycle. In a recession

employment –and thus the number of insiders– is typically reduced. Because the target employment level is now lower, in the subsequent expansion the insiders can obtain higher wages than before without raising the likelihood of losing their jobs. As a result, employment’s response to higher output is lowered. In fact, firms in this dataset show such asymmetry: employment fell more when firms experienced output reductions than it grew when their output increased. This indicates that there is still hoarded labor, but also the presence of insider effects. In fact, SOEs are large enterprises with strong trade unions, which have a powerful influence on wage levels. It is quite likely that this contributes to a lower response of employment to higher output and hence to the persistence of unemployment.

Private and privatized firms in the dataset show lower wage-to- productivity ratios than SOEs, but the difference is not large: 50 versus 60 percent. This implies that insider effects are also strong in private firms. They may not be so strong, however, in firms created since 1989, which are excluded from the sample. This conjecture could only be confirmed with better data. Nevertheless, it is consistent with the fact that unions are not well established in new firms, which are mostly small. Evidence from other sources indicates that wages are set closer to market clearing levels in the private sector. In particular, in the following section I discuss how returns to skill have grown substantially in Poland, especially in the private sector.

We can also ask whether wage growth in Poland responds to unemployment. I address this issue by estimating a (Phillips curve) regression of the annual change in real wages on the unemployment rate for 1993-1996, across 9 macro-regions. This is done for two worker types: low-skill (basic vo-

cational training) and high-skill (post-secondary and university education). Empirically, a 1 percentage point increase in their own unemployment rate is associated with a fall in the rate of real wage growth of 0.18 of 1 percent for the low-skilled and of 0.34 of 1 percent for the high-skilled (Appendix 1). These figures are low by EU standards, where the average estimated effect is about 1-to-1 (Grubb et al., 1983).

Policy recommendations. Wage formation in Poland is moving towards a market system. In the public sector, Tripartite Commission wage guidelines are ex-post indexed to the CPI. TC-determined real wage growth (e.g. in the public administration) has recently gone beyond average productivity growth, and so, from an efficiency point of view, it is excessive. Moreover, TC guidelines probably focus wage growth expectations for the whole economy. Such role is surely limited today, as shown by the observed link between wage growth and firm-specific developments in both private firms and SOEs. To the extent that they do focus expectations, however, lower TC guidelines could be used as a disinflationary device (as was done, e.g., in France in the 1980s).

At SOEs, wage settlements appear to be dominated by incumbent employees, who appropriate about half of all productivity increases. This is compelling evidence for speedier privatization. Lastly, private sector wage setting is quite decentralized. The international literature indicates that countries with either very centralized or very decentralized wage formation systems have had better economic performance, with the qualification that centralized systems have only worked in small and homogeneous countries. The system in between, industry-level bargaining, tends to weaken the forces

restraining wage pressure, like foreign competition or the non-unionized part of the industry (Calmfors, 1993). Thus, industry-level bargaining is harmful when unions are powerful and it especially affects the non-tradable goods sector, which is not subject to direct foreign competition.

Most EU countries have evolved towards industry-level wage bargaining, by which collective agreements are extended to all firms in a given industry. This has been either the result of unions and employers' associations being highly representative, so that the extension seemed natural (as in the Netherlands), or the consequence of a legislative provision (as in Spain). Poland will likely evolve towards an industry-based system, but this is not inevitable nor, probably, desirable. Neither unions nor employers' associations are very representative in the private sector, and the law does not establish automatic extension of collective agreements. As a result, Polish governments should not impose industry agreements on firms that remain uncovered by them.

4 Labor supply

Labor reallocation clearly carries with it the risk of rising unemployment, if workers who become unemployed tend to remain such for long periods instead of quickly finding a new job. The likelihood of this behavior, taking labor demand as given, is affected by labor market policies, both passive and active, and by geographical labor mobility. I now turn to these issues.

Unemployment benefits

Unemployment benefits are a very important social program in Poland. In 1995 they amounted to 1.8 percent of GDP and on average 1.3 million workers, about half of the unemployed, received them. The main elements of the current unemployment system are as follows. Eligibility to benefits requires having 6 months of employment tenure in the previous 12 months. Benefits last for 12 months and amount to Zł 297.5 per month, indexed quarterly on the consumer price index. (This is the November 1996 amount; up to 1996 it was equal to 36 percent of the national average wage.) Benefits are temporarily withdrawn if the worker does not visit the employment office when called upon or refuses more than 1 adequate job offer or more than 1 offer of a training course, a public-works job, or a subsidized private-sector job. More generous conditions apply in regions threatened with high structural unemployment. Benefits are paid out of the Labor Fund, financed through employers' contributions and State subsidies.

The current system therefore has a short eligibility employment period, a benefit duration unrelated to previous employment tenure, and a benefit amount not linked to either the worker's previous wage or ongoing unemployment spell duration. This was adequate in 1990, when wide income protection against a new phenomenon like unemployment was needed, there was no history of unemployment insurance contributions, and limited administrative capabilities called for simplicity. These elements are largely irrelevant now, and the system is plagued with problems.

The combination of a short eligibility employment period and the absence of a link between benefit duration and employment tenure encourages

sequences of short periods of employment followed by longer periods of unemployment with benefits, which threaten the system's financial stability. The absence of a link between the benefit amount and the worker's previous wage creates high replacement ratios (the ratio of the benefit to the worker's last wage) for low-wage workers and low replacement ratios for high-wage workers. For example, in the private sector, the replacement ratio is 93 percent for the average blue-collar worker at the top of the lowest wage decile (a worker placed in the wage distribution so that only 10 percent of workers have a lower wage than his/hers). For the average white-collar worker at the bottom of the highest wage decile (so that 90 percent of workers have a lower wage) the replacement ratio is 16 percent (September 1995). This feature creates low search incentives for low-wage workers and high income reductions for high-wage workers. It also provides no incentives for workers to demand from employers an accurate reporting of their wage for payroll tax purposes.

The negative effects of this benefit system are evident. First of all, the monthly unemployment outflow rate is low. In 1995 it was 9.4 percent of the average number of unemployed, up from 4.3 percent in 1992. This figure, which corresponds to a high GDP growth period, is lower than in the EU (where it ranged from 11.4 percent in France to 35.8 percent in Norway in 1992, not a high growth year (Boeri, 1994)). As a result, unemployment spells are long, with an average duration of 15 months, and long-term unemployment (over 1 year) is high, 40 percent. The combination of the latter two figures suggests that a large share of people leave unemployment shortly after benefits run out. Empirical studies indicate that, once other personal

characteristics are taken into account, the exit rate from unemployment of benefit recipients is between 7 and 10 percentage points lower than that of non-recipients (Góra, 1996, and Steiner and Kwiatkowski, 1995, respectively). The second piece of evidence is the large size of the underground economy, officially estimated at 909,000 jobs in August 1995, or 6 percent of official employment (Kałaska and Witkowski, 1995). A non-trivial share of this population could be receiving benefits. Lastly, Labor Fund's finances are in trouble. In 1995 employer contributions towards benefits fell short of actual payments by Zł 3 million or 1.1 percent of GDP, a deficit covered by State subsidies. In the last quarter of 1996, the Labor Fund had to seek an extra subsidy from the State, in order to finance its expenditures.

These problems reveal the need for a reform of the unemployment benefit system. The Polish Government has proposed a new Act on Unemployment Insurance (Box 1 and Figure 2). The new system, with a longer eligibility period and benefit amounts linked to both previous tenure and unemployment duration, is meant to become a self-financing insurance scheme. The Act directly addresses the problems just described and goes in the right direction. The new proposed system is also closer to those of most EU countries, which will make social security coordination easier.

Available empirical evidence for OECD countries indicates that benefit duration affects unemployment duration more than replacement ratios (Atkinson and Micklewright, 1992). And jobfinding chances decrease with unemployment duration, as a result of loss of skills, disenfranchisement of the unemployed from the labor market, and discrimination by employers against the long-term unemployed. These labor supply or "outsider" factors

have been found in some EU countries, like the UK, to be more important as sources of unemployment persistence than the "insider" effects discussed above (Layard et al., 1991). As a result, the main troubling aspect of the Polish reform proposal is that benefit duration will still be relatively long for short employment tenures (e.g. 1 year of benefits for 1 year of employment). Furthermore, after unemployment benefits run out, workers may get social assistance benefits, under certain conditions. These benefits amount to 31 percent of the average wage, or around 86 percent of the regular unemployment benefit. In 1992, 754,000 people received temporary assistance benefits, most of them being unemployed workers. This figure represents 83 percent of the average number of long-term unemployed in that year, which is quite a high share.³ Therefore, in order to reduce unemployment spell durations, it may be desirable to establish shorter unemployment benefit entitlement periods for short employment spells. Efforts should also be made to avoid unduly long total benefit durations, through the coordination between Social Workers, who are responsible for granting assistance benefits, and Local Labor Offices, which release unemployment benefits.

Education and active labor market policies

In this section I analyze, in turn, the role that education and active labor market policies play in Poland's EU accession path.⁴

1. Education

³Note, however, that this indicator may overstate the actual monthly share, since it is calculated as an annual stock divided by an average monthly stock.

⁴This section draws on Rutkowski (1996b,c).

Investment in human capital raises productivity and therefore the rate of economic growth. Education is therefore a key determinant of the chances of success of Poland's EU accession strategy. The Polish labor force is already highly educated: 77 percent has more than primary education and 10 percent has a university degree (Table 3). Such educational attainment compares well with those in lower income EU countries, like Spain, where the corresponding figures are 63 and 15 percent.

Thus, judging by formal educational attainment, there is not a large skill gap between Poland and the EU. However, some features inherited from the communist period paint a less rosy picture. One-third of workers have only received basic vocational training, which provides skills which are narrow and inflexible. Moreover, education is biased towards memorizing of fact, while problem-solving abilities are neglected.⁵ Workers are also affected by the lack of incentives which characterized communism: low morale, high absenteeism, and widespread alcoholism.

Thus, the actual quality of the labor force may be significantly lower than suggested by formal qualifications. An international survey of literacy provides evidence to this effect (OECD, 1995). It finds, for example, that 40 to 45 percent of Poles perform only at the lowest proficiency level of the literacy scales –prose, document, and quantitative– vis-a-vis 7 to 14 percent of Germans. This suggests that a large share of the population may not be able to access, organize, and use the information generated by a modern market economy.

⁵Children from ex-communist countries tend to do better than their West European counterparts on tests of how much they know, but worse on tests asking them to apply such knowledge in new circumstances (World Bank, 1996).

Successful restructuring requires a labor force capable of and willing to acquire new skills. For this purpose, labor market outcomes must indicate that high skills pay off, people must react by showing willingness to acquire the skills in demand, and the education and training system must provide those skills. I now discuss how Poland has fared in these three areas.

Returns to skill. Investing in skills is clearly profitable in Poland. First of all, unemployment rates are much lower for workers with more than secondary education than for others, especially for those with basic vocational education (Table 3). The differences are high by EU standards. For example, the unemployment rate of workers with primary education or less is 4.8 times the rate for university graduates, whereas in Spain it is 1.2.

The wage structure also rewards skills; and much more so than in the past. In 1995 net earnings of workers with university education were 48 percent higher than for those with basic vocational education, up from 17 percent in 1985 (Table 3). This gap is, however, still lower than in the EU. The rate of return to schooling is around 7 percent, up from 5 percent in 1987, quite typical for OECD economies but lower than those prevailing in developing countries (Psacharopoulos, 1993). Most of the rise in earnings inequality has been due to changes at the upper tail of the earnings distribution (Rutkowski, 1996a). Top decile workers receive 97 percent more than the median worker (the so-called P90 ratio), up from 59 percent in 1989. By contrast, workers at the bottom decile receive 59 percent of the median wage (the P10 ratio), only 7 percentage points less than in 1989. These relativities are the same as in the UK, with the P10 ratio being slightly lower than the EU average and the P90 ratio somewhat higher, so that the ratio of top to bottom decile

earnings is relatively high.

In the previous section I showed that real wages respond to the unemployment rate about half as much for low than for high-skill workers. There are two key factors preventing a stronger response of the wages of the less skilled. The first one is the insider power mechanism described before. This operates mostly at SOEs and for manual workers, who form the unions' main constituency. For example, the P10 ratio is 4 percentage points higher in the public than in the private sector. And the difference is probably higher, because SOEs provide substantial social benefits (child and health care; and food, housing, and holiday subsidies) regardless of skill level, whereas private firms provide benefits to a much lower extent (Estrin, Schaffer, and Singh, 1995).

Adjustment of wages of low-skill labor is also prevented by legal wage floors. Bargained wages are determined as a mark-up on fall-back alternatives. In employment the alternative is affected by the minimum wage, whereas in unemployment there are two wage floors: the unemployment benefit and the wage at public-works jobs. The bite of these floors is reinforced by their being linked to the average wage. For example, the minimum wage (determined at the Tripartite Commission) has typically been set around 40 percent of the average wage and the unemployment benefit at 36 percent.⁶

Public works, mostly taken up by the less skilled, pay up to 75 percent. These floors are more binding for low-skill workers. For example, while 3.6 percent of all workers are at or below the minimum wage, the corresponding figure is around 10 percent for blue collar workers in the private sector,

⁶Minimum wages are actually set according to a formula which targets expenditures of the poorest workers' households, among other variables.

and 30 percent for blue collar workers in the Hotels and Restaurants private sector (September 1995).

Legal wage floors effectively constrain downward wage adjustments and thus lower the employment chances of low-skill workers. Although the relative level of the Polish minimum wage is in the lower end of the EU range,⁷ the relative unemployment rate of the less skilled is also much higher than in the EU. Furthermore, international empirical evidence shows that minimum wages reduce mostly young workers' employment, who are less productive than more experienced workers (Dolado et al., 1996), and in Poland workers aged 18 and 19 suffer a 28 percent unemployment rate.

In consequence, to raise wage flexibility, legal floors in Poland should be delinked from the average wage and indexed to the consumer price index, at least for a number of years. The authorities may also consider establishing a lower minimum wage for young workers, e.g. up to 19 years old, than for older ones. This policy would allow young workers to gain quicker access to employment, thereby gaining experience on the job and a stronger enfranchisement into the labor force.

It should be clear that higher wage flexibility at the bottom of the wage distribution need not necessarily mean a fall in either low-skill workers' nominal or real wages. Their wages will rise with inflation and, once they are at market levels, with their productivity growth. Also, such flexibility will probably increase wage inequality, and this may raise equity concerns. It should be noted, however, that inequality is likely to be reduced in the medium-run,

⁷The minimum wage in the Netherlands is around 55 percent of the average wage, and in France it is 50 percent. In Spain, however, it stands at 35 percent, and in the UK there is no legal minimum wage (OECD, 1994).

as the response to higher returns to skill makes skilled labor more abundant.

Demand for and access to education. Poles have quickly become aware of the rise in the returns to education. As a result, they have switched away from basic vocational toward full secondary education and have raised their tertiary education enrollment ratio (Table 3). The latter is still lower than in most EU countries (around 40 percent), but it is already similar to that in Portugal (23.4 percent) or Greece (25.9 percent).

Poland could stand to gain a large growth dividend from investing in education. Rough empirical estimates indicate that, over the last 30 years in a very wide sample of countries, each percentage point of the gross primary and secondary school enrollment rates has been associated with a long-term yearly growth rate of per capita GDP of 0.025 and 0.0305 of 1 percent, respectively (Barro, 1991).⁸ At current enrollment rates, these and similar calculations imply long-term growth rates for Poland between 2.8 and 4.8 percent (Fischer et al., 1996). These estimates arise from very simple empirical specifications and need not necessarily hold in the future, but they certainly send the message that education is crucial for long-term growth.

Access to education has improved in Poland, as witnessed by the above figures. However, public expenditure on education has fallen by about 20 percent in real terms since 1989, which suggests a deterioration in quality. Indeed, public schools are underfinanced and teachers' salaries are low. Private education is emerging, but it is still small, accounting for 4 percent of high school students and 10 percent of college students.

⁸These effects apply once the initial income level and the share of government consumption in GDP, both of which bear a negatively signed coefficient, are held constant. More sophisticated estimates appear in Barro and Sala-i-Martin (1995).

Expenditure in public educational institutions in Poland, at 4.5 percent of GDP, is the same as the EU average. This is very close to the figure for Spain (4.2 percent), though less than in Portugal (5.2 percent) or Ireland (5.7 percent). Once private education is included, however, the EU average becomes 5.6 percent of GDP. Roughly speaking, Poland may aim to spend on education, including private institutions, somewhat over 5 percent of GDP, as does for example Spain (5.2 percent). Resources may be obtained from tuition fees on university education, currently absent, though this should be coupled with scholarships and student loans, to address equity concerns. In primary and secondary education, greater efficiency can be achieved by increasing student-to-teacher ratios from the current figures of 16 and 18, respectively, to EU standards of 20 to 25 (World Bank, 1992).

Educational contents must also change. The skills taught should be broad, transferable and in demand. Education should foster creativity and the ability of lifelong learning. Some changes along these lines have occurred. Basic vocational training is being replaced by general secondary education. Heavy focus on technical education is giving way to a more balanced mix, with social sciences playing a larger role. But curricula and teaching methods are being revised slowly, and so the Ministry of Education should intensify its efforts to accelerate change.

2. Training for the unemployed

Like in most market economies, in Poland the State provides training for the unemployed, so as to improve their jobfinding prospects. Is training effective? Answering this question requires experimental methods. Non-

experimental studies cannot determine the relative influence on placement rates of receiving training as opposed to the initial characteristics of trainees. Having a "treatment group" (trained) and a "control group" (not trained) allows for disentangling the two effects. If trainees who found a job would have found it anyway, there would be a deadweight loss (devoting resources to achieve outcomes that would have occurred anyway). This is a likely risk, since in most countries training is largely received by workers with good initial education. An experimental study of this kind, sponsored by the World Bank, is about to be carried out in Poland. Any far reaching assessment of the effectiveness of training before the results of the study are available would therefore be premature.

OECD governments' experience with training programs for the unemployed is mixed (OECD, 1993). Broadly targeted training programs seldom raise either employment chances or earnings. Programs targeting particular problems (e.g. for skills in short supply) obtain better results; and the impact is greatest for individuals whose problems are clearly identified and only moderately severe. The effectiveness also increases if training is focused on the needs of employers and aims at well identified vacancies.

It may be argued that training programs are more efficient in transition economies, given the larger degree of obsolescence of skills in those countries and the need in many of them to retrain redundant workers in sectors like agriculture, mining, or steel. Evidence is scant, but it tends to confirm OECD countries' results (see O'Leary, 1995, for Hungary, and Fitzenberger and Prey, 1996, for East Germany). For Poland, one study finds that training raises re-employment probabilities but another finds it does not (Góra et al.,

1995, and Puhani and Steiner, 1996, respectively).

The main features of training in Poland are as follows.⁹ (a) Training is received by just over 3 percent of the unemployed in Poland, less than in the majority of EU countries. (b) It is disproportionately received by the more educated unemployed workers. (c) Around 54 percent of the unemployed trained during 1995 found a job within that year (actually up to March 1996). Average jobfinding rates in the EU range from 30 to 50 percent, but these figures are not comparable, because in the EU trainees are followed for a fixed period after completing training, whereas in Poland the follow-up period varies for different trainees.¹⁰ (d) The jobfinding rate varies significantly by region, from 40 to 80 percent. It is not correlated with the regional unemployment rate but it is negatively correlated with training enrollment.

The third feature suggests training does not do much: the joint outflow rate to jobs (the total inflow into unemployment divided by the outflow to jobs) of all workers, both trained and not trained, was 53.5% in 1995. The fourth feature indicates that the success rate is mainly determined by the design of training courses, the Regional Labor Offices' recognition of the skill profile of labor demand, and possibly by differential criteria for trainee selection. Thus higher jobfinding rates may be attained if least successful Labor Offices adopt the observed best practice.

⁹The figures refer to training arranged by Local Labor Offices at educational institutions. They do not cover training provided by employers taking advantage of existing incentives (Box 2).

¹⁰For example, given the March 1996 cutoff, someone who finished training, e.g., in January 1995 would be monitored for up to 14 months, whereas someone who finished in December 1995 would be monitored for up to 3 months.

Given current shortcomings in training programs for the unemployed in Poland (Kabaj, 1996), reform should advance along the following lines: (a) Training should be targeted on groups with clearly identified and moderately severe labor market problems (i.e., those whose jobfinding chances are raised more by training). (b) Employers should be actively involved in the design of training courses, through existing Employment Councils. (c) Training should aim at well identified vacancies and focus on the needs of employers rather than workers. (d) Classroom training should be combined with company-based training.

3. The balance of labor market policies

In 1995 Poland spent 2.2 percent of its GDP in labor market policies. Unemployment benefits took the lion's share, leaving only 12.2 percent of expenditures for active policies (Table 4). Expenditures are below the mid-range levels in the EU of 2.5 to 4 percent (e.g. 3.3 percent in Spain in 1995), and the share of active policies is also lower than typical EU ones of 25 to 33 percent (though it is lower in Spain, 21 percent) (OECD, 1996).

Like most countries, Poland has implemented a menu of active labor market programs (Box 2). In terms of expenditure, the most important ones are wage subsidies to private firms –called "intervention works" in Poland– and public works. Training gets a meager 8.6 percent of those expenditures. It is quite telling that expenditure per participant is highest the lowest is the subsequent jobfinding/keeping rate of the program (Table 4). In this sense, training is the cheapest and also the most effective program (Olejarz, 1994).

Assessing the true effectiveness of labor market policies is difficult, be-

cause they have several sorts of effects. Apart from their favorable impact on the employability of participants, they can have negative effects such as deadweight losses, wage inflexibility, substitution effects (when jobs created for a certain category of workers replace jobs for other categories, because relative wage costs are changed), and displacement effects (when jobs created by policies crowd out regular employment). OECD countries' evidence indicates that active labor market policies only have a marginal effect in reducing unemployment (OECD, 1993). The experience suggests that enhancing workers' job opportunities while preserving incentives for individual job search requires: setting compensation levels well below market wages, establishing short durations to avoid locking-in effects, and maintaining a portfolio of programs in which counselling activities, job search assistance, and training get the highest shares (Calmfors, 1994).

An Act reforming active policies is currently being discussed (Box 2). The main change is to link payments for various programs to the minimum wage rather than to the average wage, which is a clear improvement. The remuneration for public works is reduced, which is desirable for wage flexibility. Going all the way to the minimum wage level, rather than 120 percent of it as envisaged, is a policy option that should be considered. An important feature of public and intervention works is that they entitle unemployed workers to renew unemployment benefits for an extra year. This undesirable feature should be eliminated or much reduced with the proposed reform of unemployment benefits (Box 1).

Given both Polish and international evidence, spending on active labor market policies should be increased, to the range of 0.5 to 1 percent of GDP.

Going beyond this threshold would not be warranted by the results that can be expected. Resources obtained from reductions in unemployment benefit outlays could be used to finance such increase.

The relative importance of programs should also change. Deadweight losses and substitution and displacement effects of intervention works are likely to be quite large. Public works are basically a costly income-maintenance program which does not result in any increase in reemployment chances for the participants. In contrast, training has a higher chance of raising jobfinding rates because it alleviates the loss of skills that arises from long unemployment spells, which itself causes unemployment to persist. Resources should therefore be shifted away from these to programs into training. This seems to be the latest trend. In the first half of 1996, considering expenditures only on the three programs, the share of public works fell by almost 10 percentage points, while it increased by 2 points for intervention works and by 8 points for training. A stronger shift is warranted. This would be consistent with the expansion of training activities envisioned in the draft Act on employment agency (Box 2). One important requirement for this rehauling to be efficient is that broadening their scope should not lead to less focused or less well targeted training programs.

Resources should also be shifted towards counselling and job search assistance. These provide both monitoring and help, they are quite cost-effective, and are becoming a leading program in EU countries (OECD, 1993). Poland has 590 Local Labor Offices. They have about 14,000 permanent employees, i.e. 6 per thousand unemployed workers, which is at the bottom of the EU range (e.g. Spain has 4.3, while Germany has 25 (European Commis-

sion, 1996)).¹¹ Efficient placement requires personalized treatment of the unemployed, which entails larger Local Labor Office staffs and a good computerized system. Again, the National Labor Office plans to provide these resources. For 1997 it intends to increase Labor Offices' staff by 2,000 permanent employees, it is currently trying out new software, and it plans to modernize the hardware, probably with the help of a World Bank loan.

Lastly, the efficiency of Labor Offices depends negatively on the number of customers they have. Polish workers have a strong incentive to sign up as unemployed, even if they are not looking for a job. Registration gives workers the right to free health care, housing benefits, and social assistance benefits. Thus Labor Offices have to find jobs for workers who may not want them. Regarding health care, the prevailing EU system, which is compatible with Poland's traditions, is the universal one, free or with token fees for particular services. Delinking access to free health care from the unemployment register, apart from other beneficial effects, would help raising the efficiency of public employment service activities.

Geographical labor mobility

A fluid labor reallocation process usually requires geographical mobility. In market economies, finding a job often requires unemployed workers to move to another district or region. This is particularly true for workers living in regions whose production structure is concentrated in declining activities (agriculture, coal mining, steel, etc.), which is frequent in Poland. There are large differences in per-capita incomes across Polish regions (World Bank,

¹¹Like in most EU countries, private placement firms exist but they are still tiny—they handled around 13,000 placements in 1995— and cater to the most skilled occupations.

1997). And unemployment rate dispersion is larger than in any EU country. For example, in 1995 the ratio of the highest to the lowest regional unemployment rate was 5.3 in Poland whereas it was 3.6 in the case of Spanish provinces.¹²

If labor was highly mobile, these large differences in unemployment rates would trigger migration flows which would foster regional convergence. In reality, this does not happen: the ranking of Polish regions according to their unemployment rates is extremely stable, and the population is not very mobile. In 1994 the interregional migration rate was equal to 0.42 percent of the population in the previous year. Such rate is low by EU standards, where typical interregional migration rates range between 1 and 2.6 percent (Faini et al., 1997). Furthermore, regions of European countries are usually bigger than Polish ones, which biases Polish rates upwards. Mobility in Poland is also low when compared with the migration rate between Spanish provinces, around 0.78 percent in 1994 (among the lowest in the EU). Moreover, regional migration rates have fallen in Poland by about 30 percent since 1989. In other words, the per-capita income convergence observed in Poland since 1989 (World Bank, 1997) has been achieved in spite of low and falling regional migration.

The negative trend in regional migration may be explained by the rise in the national unemployment rate, which makes jobs hard to find in most regions. As to its level, a simple empirical analysis shows that net migration to Polish regions (the difference between in- and out-migration) responds to differentials in economic variables (Appendix 1). As we would expect,

¹²There are 50 provinces in Spain, vis-a-vis 49 regions in Poland.

people move to regions where the unemployment rate is lower, wages are higher, and there is less competition for jobs than elsewhere. But migration responses are low. The main cause of this lies with housing. The housing market works quite poorly along most dimensions. First, privatization has not been completed yet: in 1995, 17 percent of housing was still public, and in urban areas the share was 24 percent.¹³ Secondly, housing supply is decreasing, and the number of dwellings completed has fallen: in 1994, 76,000 dwellings were completed, representing one-half of the 1990 figure. Housing investment's share of GDP fell from 5 percent in 1990 to 2 percent in 1995 (Łaszek, 1996). Regulations make it difficult and expensive to obtain new land for construction in cities, either for owner occupation or for rent. Thirdly, rental housing is also scarce due to rent control, which makes old rents a very good deal for tenants but yields low or negative returns for owners. This causes both little turnover in rental housing and a small new supply flow due to persisting uncertainty as to whether rent control may apply to new housing. The supply bottleneck is causing high prices in urban areas. For example, in 1995 the price of an average-quality apartment of 100 square meters in Łodz (17.5 unemployment rate) was equal to 10 times the yearly national wage (net of taxes); in Warsaw (5.3 percent unemployment) it was 24 times the wage. Fourth, credit is also scarce and expensive. In 1995 housing credit to the private sector fell by 0.8 percent in real terms (using the housing price deflator). Mortgage loans are hard to obtain, do not allow for long repayment periods, and charge very high interest rates: at the end of 1995, mortgage rates at the housing public bank, PKO bp, were 32.5

¹³Enterprise-owned housing is considered as private, although most of it belongs to SOEs.

percent, that is, 11 percentage points above the CPI inflation rate.

Detailed discussion of housing market reform would take us too far afield. The broad lines of reform are clear, though: finishing up privatization and raising the rents of public housing, mostly in the hands of local governments, to cover at least maintenance costs; freeing up land supply, particularly in cities; fully removing rent control from private housing; and developing a housing finance system based on market principles, in particular, introducing and enforcing a legal and regulatory framework that recognizes mortgages as sound collateral for real estate loans (World Bank, 1994). During the communist period housing was considered a social good and so Polish households are not used to devoting more than a small share of their income to housing expenditures. As a result, during the transition period Polish governments have taken measures along the lines described above too gradually (Łaszek, 1996). The realization that freeing up such an important market is crucial for the desired convergence to the EU should provide the impetus needed for accelerating reforms. If carried out, they could have potentially very large employment effects in the construction sector, making possible the employment increase envisioned in the scenario at the beginning of the paper.

Some labor market institutions may also be affecting migration negatively. First, Polish firms provide extensive social benefits to their employees. In a representative sample of 200 manufacturing firms, only 10 percent did not provide any type of social benefit in late 1993 (Estrin, Schaffer, and Singh, 1995). In particular, 52 percent provided housing facilities or subsidies, though only 3 percent of private firms did. This strongly deters any move from a region where an SOE provides cheap housing to another region

where a job with a private firm will probably not do so. Secondly, unemployment benefit duration may legally be made to depend on the regional unemployment rate: it may be lowered to 6 months in regions with below average unemployment and it may be raised to 18 months in regions with the highest unemployment rates. This policy tends to perpetuate the status of being a high unemployment region, since it tends to lengthen unemployment spells more in regions with the highest unemployment rates, and reduces incentives for migration. At this stage there may not be alternative policies to cushion the impact of unemployment in some areas, but once the housing bottleneck starts to loosen, Poland should move to a system with uniform duration of unemployment benefits across all regions. Lastly, Polish workers can get public housing benefits, but if they move it takes some time to reestablish the right to those benefits. These administrative delays may be binding for workers subject to liquidity constraints and may therefore discourage migration. Thus, efforts should be made to reduce this type of delay.

5 Labor market regulations and labor demand

Poland's ability to create new jobs is obviously crucial for the success of its EU accession plans. Gross employment growth in Poland since 1989 has been strong: although public employment declined markedly, private net employment growth averaged 2.4 percent per year over 1990-1995. And the total number of firms by the end of 1995 was above 1 million (27.6 per 1,000 people). However, successful convergence to the EU requires strong net employment growth, as highlighted in the reallocation section at the beginning

of the paper, and this is where some failings of the Polish employment evolution show up. For example, growth has been concentrated in very small firms. Medium-sized firms hardly exist in Poland at this stage (Konings et al., 1996). For example, small and medium-sized enterprises (below 200 workers) account for 23 percent of employment in Poland, vis-a-vis 69 percent in the EU-12 (EBRD, 1995). Growth of medium-sized firms requires access to credit to finance investments in capital, but credit is very limited. Management expertise is also lacking. The incidence of these problems could be alleviated by attracting foreign direct investment.

Another relevant issue is the evolution of labor costs. At 2.1 dollars, its hourly labor cost in manufacturing in 1995 was equal to only 6.6 percent of that in Germany and to 16.5 percent of that in Spain. Even after correcting for productivity, these differentials imply great opportunities for foreign investment in Poland and for export-led growth. Wages will increase as productivity does, but for these opportunities to materialize, labor cost advantages should not be quickly eroded. The most important source of non-wage labor costs is the regulatory system. In this section I focus on the impact of labor market regulations on firms' labor demand. I discuss 3 institutions: social security contributions, restrictions on hours worked, and dismissal costs. Then I turn to areas where Poland has to meet formal EU-accession norms.

Social Security contributions, restrictions on hours of work, and dismissal costs

Social security contributions are high in Poland. They currently stand at

48.5 percent of the payroll, earmarked as follows: 45 percent for pensions, 3 percent for unemployment benefits, and 0.5 percent for payment of wages due in case of insolvency of the firm. The total rate is comparable to EU levels.

Does the high payroll tax rate harm employment growth in Poland? Rigorous empirical evidence is not available, so I have to rely on international experience and on indirect evidence for Poland. Raising labor costs through payroll taxes reduces labor demand, unless employers are able to shift the entire tax burden on to employees. Most empirical studies indicate the latter is not true, except in the long run.¹⁴ The evidence also suggests that payroll taxes affect the demand for low-skill workers –for whom these taxes represent a larger proportion of their cost to firms– more strongly than the demand for high-skill workers (Nickell and Bell, 1995).

Three sorts of indirect evidence indicate that Polish employers consider payroll tax rates as being very high. The first one is the relatively large size of the underground economy. Several of the reasons for taking an underground job, given by workers in surveys, have to do with taxes (Kałaska and Witkowski, 1996).¹⁵ The second piece of anecdotal evidence is that in 1995 there was a large surge in hiring under the so-called "civil law contracts", which are meant to be used for short periods. This phenomenon prompted

¹⁴Time-series studies find a large short- and medium-run incidence of payroll taxes on labor costs (i.e., employers can only shift a small fraction of the tax burden on to employees), but cross-section evidence does not suggest a clear long-run relationship (OECD, 1990).

¹⁵In particular, 16 percent of respondents said they could get higher incomes without a legal contract, 24 percent said taxes were too high, and 16 percent said social security contributions were too high. (These percentages cannot be added up, since the same person could quote several reasons.)

the Ministry of Labor and Social Policy to subject these contracts to social security contributions (which was not the case before). As a result, their use immediately went back down to the usual levels. Finally, there is a relatively large difference in reported wages, for comparable categories of workers, in SOEs and private firms. Apart from other reasons already discussed, some of the difference may stem from a larger degree of under-reporting of wages in the private sector.

In summary, high social security contribution rates are probably harmful to employment in Poland, but only to a moderate extent so far, because private firms avoid them through either under-reporting of wages or outright shift to the underground economy. From the point of view of public finances, this hardly seems a sustainable path. Moreover, the planned increase in employer contributions to the Unemployment Insurance Fund in 1999 (Box 1) can only exacerbate the problem.

Regarding hours of work, the new Labor Code limits the maximum number of hours worked to 8 per day and 42 per week on average, in a calculation period not exceeding 3 months. Extensions of these ceilings may be granted in particular activities, but then the calculation period is reduced to 1 month. Work in excess of these ceilings is considered overtime, which is limited to 150 hours per year and entails wage premia. Polish regulations are more restrictive than EU-wide ones: the 1993 EU Directive on hours of work sets a maximum of 48 hours and it allows for plenty of exceptions. Limits on the hours of work which are binding for firms raise labor costs and therefore reduce employment. They do not seem an adequate policy for Poland at this stage.

Lastly, dismissal costs in Poland are low in comparison with the EU. Legal severance pay is 1 month's remuneration for employees with up to 10 years of tenure, 2 month's remuneration for those with tenures between 10 and 20 years, and 3 month's remuneration for higher tenures. The total amount is capped at 15 times the minimum wage. Employers must also give workers 45 days' advance notice of dismissals. Firing costs arise also from procedural delays and complications. Indeed, EU employers often quote the latter as more important sources of costs than severance pay (Grubb and Wells, 1993), but there is no evidence that they are high in Poland at all.

High firing costs make it difficult for employment to respond to changes in output and they retard reallocation of workers from less to more productive activities. They can also lead to a high power of "insider" employees in wage bargains. For these reasons, it is better to leave severance pay determination to collective bargaining rather than imposing high levels by law. In Poland, dismissals generated by the labor reallocation process may engender public pressure for more employment protection. In such situation the best policy course would be to keep severance pay at current levels and avoid any increase in other sources of firing costs.

Complying with the "Acquis Communautaire"

Accession to the EU implies adopting as Polish law all legislation which is binding for all member countries, the *Acquis Communautaire*. This implies recognizing a set of minimum rights for Polish workers and standardizing labor conditions with those prevailing in some of the most advanced countries in the world. On the one hand, achieving those standards clearly entails an

increase in welfare. On the other hand, it also involves some costs. Broadly speaking, EU countries have had a poor record regarding employment growth and unemployment rates since the mid-1970s, and there is a widespread belief that this lackluster performance is partly due to pervasive labor market regulation in those countries (OECD, 1994). This idea is informally supported by a comparison of EU conditions with the tandem of a much better unemployment performance and a less regulated labor market in the US, although rigorous evidence of a direct link is missing. The Polish people probably want to converge to the EU, not the US, model. But the latter is quite useful as a benchmark, so as to avoid the most distorting aspects of EU regulations. Since the benefits of adopting the *Acquis* are both quite apparent and hard to quantify, this sub-section is mostly devoted to highlighting some of the costs. Before doing this, I discuss how far away from compliance Poland is, in the areas where it needs to adopt some EU legislation.

The gap between the regulation in Poland vis-a-vis the EU is not so large, because Poland already regulated labor conditions to some degree during communism. Poland has been an active partner of the ILO since 1919 and has ratified 81 ILO conventions, including the most important ones. Moreover, Poland has been cooperating with the EU in drafting its recent legislation, so that it would not contravene EU regulations. The most important piece of legislation is the new Labor Code (LC) of 1996, which instituted a highly regulatory framework. Thus, in most cases, the gaps refer not to the absence of legal provisions but to insufficient compliance with them. Recognizing these gaps, the European Commission has already granted Poland the right to close them in two stages. In the field of social policy, the relevant binding

legislation covers four areas, which I now discuss. I first describe legislative approximation and then provide information on compliance.

(a) *Equal opportunity for men and women.* EU regulations comprise equal pay and equal treatment for access to employment (first stage); and equal treatment for access to social security, occupational social security, and for the self-employed, and protection of pregnancy and maternity at work (second stage).

First stage provisions are already in place (LC art. 11), and there are also specific provisions concerning maternity, with regard to exposure to harmful conditions, dismissals, and leaves (LC arts. 176-180). Unequal treatment in placement and vocational guidance is also illegal (Law on Employment and Counteracting Unemployment arts. 12 and 17, and principles governing Local Labor Offices). However, no provisions exist yet in Poland on access to social security.

(b) *Health and safety at work.* EU regulations require employers to assess the risks to safety and health at work and to ensure that workers receive appropriate information and training. In the first stage, only measures that encourage improvements in this area are needed; in the second stage, minimum levels have to be attained. Poland has adopted most EU regulations (LC part X), although 3 key EU directives have yet to be implemented (on catastrophes; on exposure to chemical, physical, and biological agents; and on use of lead). Moreover, Polish legislation is more permissive than the *Acquis* regarding admissible health hazard levels. The Polish government's program on "Safety and health protection in the working environment" foresees a legal approximation process going up to the year 2000.

(c) Labor law and working conditions. EU regulations relate to collective dismissals; safeguarding of employee rights in the event of transfers of undertakings, businesses, or part of businesses; protection of employees in the event of the insolvency of their employer; and protection of young people at work.

Polish laws comply with EU regulations on collective dismissals regarding notice to labor authorities, notice to and consultation with workers, and rights of appeal, although the definition of what is a collective dismissal differs slightly ("Mass Layoffs Act"). Employee rights are also protected in the event of business transfers (LC art. 23) and employer insolvency (Law on Protection of Workers' Dues in the Event of Insolvency of Employers). Young workers are protected via provisions on minimum age for work (LC art. 22), maximum hours of work (LC art. 202), and exposure to harmful conditions (Dec. 1990 regulation).

(d) Coordination of social security schemes. Coordination neither exists nor is actually needed at this stage. In the second stage, the coordination will apply to all workers, ensuring that they can freely move within the EU. Current Polish regulations limit coordination. For example, the right to a Polish pension is suspended if the beneficiary migrates abroad (Act on Old-age Pensions, arts. 81 and 84). However, some coordination is being established through bilateral agreements: pensions are already being transferred by EU countries to their nationals residing in Poland (Belgium, France, and Germany) and also by Poland to its nationals abroad (those 3 countries plus Austria, Denmark, Italy, the Netherlands, the United Kingdom, and Sweden).

Poland has to adopt all first-stage regulations, taking into account its expected accession date. It also has to plan for adoption of those second-stage regulations not yet in place, so as to show how and when they will be incorporated. The same applies to the Protocol on Social Policy in the Maastricht Treaty, which restated the goal of achieving equal pay for equal work for male and female workers, and whose development will deepen regulation in other areas, as contained in the European Commission's 1995 proposal of a "Social Action Programme".

Turning now to compliance, data are only available in the area of health and safety at work (point b). In 1995 there were 102,000 work-related accidents in Poland, i.e. about 0.7 percent of employment. This is low by EU standards; for example the ratio is 3.5 percent in France (1990), 6.8 percent in Portugal (1989), and 8.1 percent in Spain (1995). Nevertheless, Polish authorities' supervision reports indicate that in most firms the conditions of occupational health and safety are unsatisfactory, and the Central Statistical Office estimates that around 1 million workers are employed in adverse or harmful conditions. Norms for chemicals, dust, and noise are routinely exceeded. Furthermore, the amount of disability and family pensions stemming from accidents at work, going to or from work, and occupational diseases was estimated at 520 million ECU in 1994. In the same year, Poland spent 1.3 percent of GDP in sickness benefits.

Improving health and safety conditions will require expenditures by both firms and the State. Assessing them is very difficult. Moreover, they should be balanced against losses caused by work-related accidents and illnesses, e.g.: loss of output, costs of medical treatment, and administrative costs

of public bodies. Estimates of the latter range from 1 to 4 percent of GDP (OECD, 1990). Given its worse starting conditions vis-a-vis the EU, Poland's investments in reducing health and safety hazards at work should yield a high return. An issue that needs to be addressed is the current ambiguity concerning which institution is responsible for enforcement. The State Labor Inspectorate, directly responsible to Parliament, is charged with monitoring the implementation of collective agreements and health and safety laws, while the MoLSP is responsible for setting standards and enforcing the law.

Compliance with regulations in the other three areas will limit firms' choice and empower workers with certain rights, so that it is likely to raise labor costs, thereby negatively affecting labor demand. For the State, implementing the regulations entails setting up mechanisms that enable authorities to monitor compliance by firms (e.g. labor inspection) and that allow workers to effectively exercise their rights (e.g. administrative and judiciary bodies). Therefore budgetary resources will need to be devoted to these activities and new taxes will have to be levied to finance them. Poland's social expenditure in 1994 amounted to 31 percent of GDP, quite above what other countries with similar income levels spend. Thus, for both labor demand and budgetary reasons, implementation of EU regulations should be gradual, stressing those areas which strengthen the market mechanism (like the defence of workers' basic rights). Looking ahead, Poland should take into account that most labor market policy changes in EU countries in the last 15 years have been of a de-regulatory nature, not the opposite.

On the bright side, upon accession Poland will become eligible for European Social Funds paid out of the EU budget. The conditions and amounts

will be determined by the outcome of the EU Intergovernmental Conference. The Fund can pay up to 50 percent of the costs of vocational retraining and worker resettlement programs. Unemployment compensation is also funded when plants are converted to other production, for workers who are temporarily suspended or suffer a reduction in working hours. Such funds will be useful in alleviating the costs of labor reallocation.

The last issue relates to external labor mobility. Poland's convergence path could be helped by having high temporary migration of workers to the EU. These workers would enhance their skills via on-the-job training (and obtain the accompanying higher remuneration) and would then return to Poland, thereby raising the country's average productivity level. Current migration of Poles to Europe is low: around 17,000 in 1994 (0.04 percent of the Polish population).¹⁶ This is probably the result of existing barriers to migration. As part of EU's contribution to Poland's integration, pre-accession quotas for temporary visas for migration to the EU could be established at generous levels. Poland has already entered agreements of this type, of a broader nature with Germany and of a narrower scope –mostly referring to apprenticeships– with other EU countries (Belgium, Finland, and France). This type of agreement should be promoted by EU institutions, which retain some competence on migration policy, although national authorities are competent on migration issues.

¹⁶ Although unrecorded migration is probably much larger this (Republic of Poland (1996), chapter 4).

6 Conclusions

Poland faces the challenge of completing its transition to a market economy while converging to the European Union. Its initial conditions indicate that it is well placed to succeed. The process of raising living standards through higher efficiency will however entail a sizable amount of reallocation of labor from declining sectors to ones with better prospects. The nature of labor market institutions is crucial for this process to be compatible with a falling unemployment rate. This paper has dealt with a handful of key institutions, proposing policy measures that would help achieve those goals.

The first area is wage setting. In the public sector it still suffers from the legacy of the communist period, which has led to insufficient adjustment at State-owned enterprises. This outcome highlights the need for speeding up privatization. In the private sector, helping wage setting to remain decentralized is the best strategy. The second area is labor supply, which is affected by several institutions. The current structure of unemployment benefits significantly reduces job search incentives and is financially unsound. Fortunately, planned reform is on the right track. The education system, while provided to a large fraction of the population, is still too close to the needs of a sclerotic planned economy and too far from those of a dynamic decentralized economy, and so appropriate changes should be speeded up. Active labor market policies are too geared towards subsidized job creation, either in the public or the private sector, and too little oriented towards helping placement and skill acquisition. The balance should be redressed towards the latter areas. Geographical labor mobility is low. Here the main bottleneck lies with the housing sector, where reforms turning it into a functioning

market are largely still to come. The last area is labor demand. Both its communist past and its European Union future tend to drive Poland towards heavy labor market regulation. Poland has to weigh the benefits from regulation against the costs it implies in terms of lower employment growth and higher unemployment rates. In a transition period with large reallocation needs, increases in regulation should be carried out at a moderate pace.

Labor market institutions naturally have a large degree of inertia, and institutional reform is a slow, consensus-building process. As Poland settles as a market economy, reforms may become harder to implement. Convincing Polish people of the benefits of having a welfare improving set of institutions which are compatible with an efficient working of the labor market is a task that the Government should undertake sooner rather than later, as a crucial contribution to a successful accession to the European Union.

Appendix 1. Additional empirical results

This appendix presents several empirical analyses referred to in the paper.

A Calculations of the reallocation scenario

(1) Net employment changes shown in Table 2 result from assuming that the employment structure in Poland converges linearly from 1995 to 2005 to that of Spain in 1985. A growth rate of 1 percent per year is assumed for total employment.

(2) Gross labor flows presented in the second section are computed from the following average ratios for the period 1994-95: total gross inflows into unemployment to net change in employment (IN), total gross outflows from unemployment to net change in employment (OUT), gross flows from employment into unemployment to total gross inflows to unemployment (EN), and gross flows from unemployment into employment to total gross outflows from unemployment (UN). Their values are: IN = 856 percent, OUT = 603 percent, EN = 74.8 percent, and UN = 50.1 percent.

The changes in net employment from Table 2 are multiplied by IN and OUT to compute gross flows into and out of unemployment, respectively. The latter flows are multiplied by EN and UN to compute gross flows from employment into unemployment and from unemployment into employment, respectively.

(3) Unemployment is computed starting from the average level in 1995, adding (subtracting) the above computed unemployment inflows (outflows). The labor force is assumed to increase at a yearly rate of 0.7 percent, which results from linearly extrapolating the 1995 figure using official working age population forecasts for the year 2000, and assuming that male and female labor force participation rates converge to 60 and 72 percent, respectively.

B Phillips curves

The relationship between wage growth and unemployment rates referred to in the text is calculated as follows. Wages and unemployment rates are computed for two groups of workers, basic vocational training (low-skill) and post-secondary and university education (high-skill), for the 9 Polish official macro-regions (Central-Capital, Central, Central-East, Central-West, North,

Northeast, South, Southeast, and Southwest). Real wage growth is computed as the first difference of the natural logarithm of the regional nominal wage divided by the national consumer price index. The reference period is 1992-1996, although the first year is lost due to the use of wage changes. A separate constant is included for each region in order to capture region-specific rates (vis-a-vis Central-Capital, the omitted region). Regression results are as follows:

a) Low-skill:

Real wage growth rate = constant - 0.018 × regional unemployment rate.
t-ratio of unemployment coefficient: 3.85; Adjusted R-squared: 0.16; degrees of freedom: 26.

a) High-skill:

Real wage growth rate = constant - 0.034 × regional unemployment rate.
t-ratio of unemployment coefficient: 4.17; Adjusted R-squared: 0.22; degrees of freedom: 26.

C Migration equation

The text discusses the response of interregional (voivodship) migration to economic variables. The dependent variable is the net migration rate into a region, i.e. the difference between gross migration into and out of it. To approximate a probability measure, it is divided by regional population (in the middle of the previous year). Migration rates are regressed on the following variables: registered unemployment rates, average wages, and number of registered unemployed persons per employment vacancy. The descriptive statistics of these variables are:

	Net migration rate	Unemployment rate	Monthly wage	Unemployed per vacancy
National average	0.42	16.4	390.4	67
Std. deviation	0.12	5.6	34.9	298
Minimum value	-0.31	7.6	318.2	9
Maximum value	0.31	30.3	483.5	1874

Note: migration and unemployment rates in percentages, net wages in zlotys.

In order to minimize endogeneity in the regression, 1994 values are used for net migration and 1993 values for the explanatory variables. The latter are expressed as deviations from the national average. Wages and unemployed per vacancy are measured in natural logarithms. The regression results are as follows (all coefficients have been multiplied by 100):

$$\begin{aligned} \text{Migration rate} = & 0.015 - 0.585 \times \text{unemployment rate} + 0.346 \times \text{wage} \\ & (0.89) \quad (2.44) \qquad \qquad \qquad (2.39) \\ & - 0.063 \times \text{unemployed per vacancy} \\ & (4.10) \end{aligned}$$

t-ratios in parentheses; Adjusted R-squared: 0.58; degrees of freedom: 45.

These results imply, for example, that a 1 percent increase in the unemployment rate in a region above the national average triggers a net migration outflow of 0.0058 of 1 percent of the region's population. And a 1 percent increase in the wage in a region above the national average triggers a net migration inflow of 0.0034 of 1 percent of the region's population.

Data sources. Section A: (1) Sectoral employment data for Poland and National Accounts (Instituto Nacional de Estadística) for Spain. (2) Registered unemployment. (3) Labor Force Survey and, for working age population, Statistical Yearbook. Sections B and C: Labor Force Survey. All data for Poland published by the Polish Statistical Institute (GUS).

Box 1. The Draft Act on Unemployment Insurance (4 June 1996)

* In the regular or full benefit system, the eligibility employment period is raised to 1 year within the previous 18 months. Benefit duration entitlement is equal to at least 1 year, but it rises with previous employment tenure, up to a maximum of 2 years. The replacement ratio is 40 percent of the average wage in the preceding 12 months. This ratio increases by 3 percent for each year of tenure but it decreases after the first 6 months of benefit receipt, by 4 percent of the preceding month's benefit. Minimum and maximum amounts are set at 60 percent of the previous wage and 75 percent of the minimum wage, respectively (Figure 2).

* A minimum benefit, lasting up to 6 months, is established for workers with employment tenures between 9 and 12 months in the previous 18 months. The replacement ratio is equal to 30 percent of the previous wage, with minimum and maximum amounts set at 50 percent and 75 percent of the minimum wage.

* Unemployment benefits are separated from other Labor Fund activities to an Unemployment Insurance Fund. This fund is meant to be self-financing by the year 2000. For this purpose, employer contributions are kept at 3 percent of the wage in 1998 and raised to 4 percent in 1999. Employee contributions are introduced in 1998 at 1 percent of the wage and raised to 2 percent in 1999.

Box 2. The draft Act on Employment Agency and Employment Support (4 June 1996)

The draft Act reforms the structure of active labor market policies. The main characteristics of existing programs and the proposed reform are as follows.

* *Intervention works.* It refunds employers for hiring an unemployed person for his/her wages and social security contributions, up to an amount equal to the unemployment benefit (plus contributions). The maximum duration is 6 months. It may also provide a lump-sum payment up to 150 percent of the average wage if the worker is kept after the initial 6 months for another 6 months and is then hired permanently. The draft Act caps the refund at 60 percent of the minimum wage (plus contributions) and the lump-sum payment at 300 percent of the minimum wage.

* *Public works.* It refunds public employers for hiring an unemployed person for his/her wages and social security contributions, up to 75 percent of the average wage (plus contributions). The maximum duration is 6 months. It may also pay 50 percent of material costs of creating the job, amounting up to 25 percent of the wage refund, in districts threatened with particularly high structural unemployment ("crisis districts"). The draft Act caps the refund at 120 percent of the minimum wage (plus contributions) and at 160 percent in crisis districts. Refund of material costs is not limited to crisis districts anymore.

* *Training incentives.* It refunds firms employing at least 50 employees for training an unemployed person for an amount up to 50 percent of the average wage. The maximum duration is 6 months (12 months in special cases). The refund is conditional on employing the worker for at least 1 year after training is completed. Trainees have to be unemployment benefit recipients and they get an extra stipend of 15 percent of the benefit. The draft Act sets the stipend at 15 percent of the minimum wage. Participation is not limited to unemployment benefit recipients. School leavers without benefits get a daily stipend equivalent to 60 percent of the daily minimum wage.

* *Financing.* Currently the Labor Fund pays for active labor market policies. According to the draft Act, they will be paid out of a Vocational Activation Fund, financed from State contributions.

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